

## South-Central Florida Metroplex Information on North Miami

September 2020

The FAA developed this document to correct misperceptions about current flight procedures and how the South-Central Florida Metroplex will affect flights over North Miami.

## **Background**

The South-Central Florida Metroplex is a comprehensive proposal to improve the flow of air traffic into and out of 21 airports in Florida by making the airspace safer and more efficient. The project proposes to add new, more efficient air traffic procedures. Most are satellite-based but several are conventional procedures based on radar and other ground-based navigational aids. Many of the current air traffic procedures in Florida are outdated. They are safe, but some are inefficient because they rely on ground-based systems, which limit available flight paths, require inefficient climbs and descents, or occupy the same airspace. Satellite-based procedures allow for fixed routes, altitudes, and aircraft speed. Precise flight tracks help keep routes automatically separated from one another.

The initiative focuses on four major international airports, where operations have a direct effect throughout the National Airspace System (NAS): Miami (MIA), Fort Lauderdale-Hollywood (FLL), Orlando (MCO) and Tampa (TPA) international airports. It also includes smaller reliever and satellite airports.

The FAA began working on the South-Central Florida Metroplex in 2012, and after a pause to reevaluate the project scope, resumed work in 2017. The agency gathered public input on the project at 17 public workshops in the study area in spring 2019. Four of the meetings were in Miami, including a workshop in North Miami on April 30, 2019.

1. Inaccurate: The FAA has already implemented Metroplex procedures over Florida.

## Accurate: The FAA has not implemented new air traffic control procedures proposed under the South-Central Florida Metroplex.

The FAA has not yet approved the South-Central Florida Metroplex Project, and if it does, implementation of the Project will not happen immediately. The FAA is still in the process of reviewing any anticipated environmental impacts. The FAA released the Draft Environmental Assessment (EA) and opened a 60-day public comment period on May 11, 2020. The agency extended the comment period to July 24, 2020, for a total of 74 days for the public to comment on the project.

The agency is reviewing public comments on the Draft EA and will consider those comments before publishing a Final Environmental Assessment, which FAA expects to release in fall 2020. The FAA cannot implement new procedures until it completes the Final EA and signs the Record of Decision. After the FAA completes the environmental review process, the agency must take several other steps before the procedures can be used. The procedures must be flown by FAA pilots and published on aeronautical charts used by pilots. Air traffic controllers must be trained in the new procedures. FAA anticipates implementing the procedures in spring/summer 2021 if the overall conclusions about environmental effects in the Draft EA do not change.

**2.** *Inaccurate:* The FAA moved traffic in late 2019 to reset the noise baseline ahead of the Metroplex project.

## Accurate: Flight tracks have remained the same over South Florida since 2006.

The FAA's baseline data for the Metroplex environmental analysis relied on a year of flight tracks from June 1, 2017 to May 30, 2018 (as documented on page 1-24 of the <u>Draft EA</u> published on May 11, 2020.)

The agency did not make changes to flight procedures in 2019. Any procedure changes would have required the agency to first comply with the National Environmental Policy Act (NEPA) and applicable agency orders. NEPA requires federal agencies to notify the public about proposed actions that may have significant environmental effects.

3. Inaccurate: The FAA has "shifted" flights over North Miami.

Accurate: Neither flights nor flight tracks have been modified over the North Miami area (North Miami, Miami Shores, El Portal, Biscayne Park, Normandy Isles, North Bay Village and North Miami Beach). The last modification to MIA departure procedures occurred in 2006.

When FAA reviewed the WINCO and HEDLY procedures specifically, the agency found that pilots were consistently using the procedures for between 40 and 41 percent of the departure flights in 2017, 2018 and 2019 when the airport was operating in an east flow. Data indicates the airport operated in an east flow about 10 percent more between December 2019 and February 2020 than it did during the same months in the previous year. The increase was due to prevailing wind conditions around the airport. The percentage of east operations on those routes remained steady between 39 and 41 percent.

Specifically, FAA analysis of flight track data over Keystone Point from peak traffic months shows the average altitude is increasing for flights over the area:

- In February 2015, an average of 138 aircraft per day flew over the area at an average altitude of 4,800 feet.
- In February 2017, an average of 162 aircraft per day flew over the area at an average altitude of 4,829 feet.
- In February 2020, an average of 164 aircraft per day flew over the area at an average altitude of 5,246 feet.

This analysis showed an average daily increase of two flights over the Keystone Point area between 2017 and 2020, while the average altitude increased by 417 feet.

Neither the FAA nor MIA have identified any data to support complaints of increased noise in North Miami. There are no recent records of North Miami residents filing aviation noise complaints before February 2020.

**4.** *Inaccurate:* Under the South Central Florida Metroplex project, the FAA is proposing to move flights away from Miami Beach to overfly North Miami.

Accurate: The FAA proposed flight tracks would shift some flights that currently overfly Miami Beach over Virginia Key and then over the ocean.

Under Metroplex proposed procedures, when flights are departing from MIA to the east, some traffic bound for the New York area and international destinations will fly southeast over water and less populated areas like Virginia Key water treatment plant. This enhances safety and efficiency by segregating these flights from the northbound traffic flying up Biscayne Bay. Today, much of this traffic flies due east from the airport over Miami Beach.

5. Inaccurate: Aircraft did not overfly North Miami before late 2019.

Accurate: Aircraft have flown over North Miami for many years, and historic flight track data proves this. Residents may be more aware of aircraft overflights because they are spending more time at home or in their communities due to the COVID-19 public health emergency.

**6.** Inaccurate: The FAA can move all northbound departures from MIA over the ocean before turning north.

Accurate: The proposed Metroplex procedures generally follow existing flight tracks. The proposed satellite-based procedures will ensure that departures will fly the current noise abatement procedures and keep the flights over Biscayne Bay. The procedures do not move flights away from existing flight paths and over new areas.

Flights departing from parallel runways must maintain lateral separation by flying 15 degree divergent headings for safety and efficiency. Airport capacity will be significantly reduced if departures fly the same headings.

7. Inaccurate: Current and forecasted aircraft noise levels are higher over North Miami than Miami Beach.

Accurate: FAA noise modeling data indicate that current and forecasted aircraft noise levels are slightly higher over Miami Beach. North Miami noise level is 47 to 48 day-night average sound level (DNL). Miami Beach noise level is 50 DNL.

The DNL noise metric is used to reflect a person's cumulative exposure to sound over a 24-hour period, expressed as the noise level for the average day of the year on the basis of annual aircraft operations. The DNL noise metric provides a mechanism to describe the effects of environmental noise in a simple and uniform way. DNL is the standard noise metric used for all FAA studies of aviation noise exposure in airport communities.

8. Inaccurate: The FAA did not engage with the public about Metroplex in 2019 and 2020.

Accurate: FAA significantly exceeded the federal requirements for community involvement in the Metroplex project. The agency met with elected officials, airport officials and community roundtables, held public workshops and conducted extensive media outreach on Metroplex.

- On Dec. 10, 2018, the FAA posted a news release, <u>FAA Starting Outreach for Metroplex Project in Florida</u>.
- On April 5, 2019, the FAA posted a news release, <u>FAA Sets Public Workshops for South-Central Florida Metroplex</u>, which announced 17 public workshops in Palm Beach,

Tampa/St. Pete, Orlando, and Fort Lauderdale. The agency held four of the workshops in Miami, including one in North Miami. The agency posted social media messages about the announcements and placed articles about the project in major newspapers in the study area including *The Miami Herald* and *The Sun Sentinel* in South Florida.

- The agency continued to post reminder messages about the upcoming meetings on social media throughout April 2019 until the final workshop on May 2, 2019.
- In April and May 2019, one year before the EA began, the FAA held 17 public workshops in the study area. The FAA designed the workshops to gather input from the public on the proposed new procedures before beginning the EA. Four of these workshops were held in Miami, and 142 people attended. The agency received a total of 287 comments about proposed procedures for Miami, and adjusted multiple procedures as a result of public comments received in the workshops.
- As a result of our public engagement in the 2019 workshops, FAA altered proposed Metroplex procedures to direct flights over the center of Biscayne Bay and routed arrivals over parks instead of residential areas. The agency also changed the proposal to direct some flights over uninhabited Virginia Key as their route to Europe and the Northeastern U.S. begins over the Atlantic Ocean. FAA worked to keep flights over water to the extent possible. FAA proposed Metroplex procedures do not include changes requested by one community at the expense of another community.
- On July 25, 2019, the FAA sent a letter notifying 590 federal, state, regional and local government agencies, elected officials and Native American tribes of the agency's intent to prepare an EA of the proposed Metroplex procedures.
- On July 28, 2019, the agency published a legal notice in English and Spanish in major newspapers in the study area to notify the public of the FAA's intent to prepare an Environmental Assessment of the proposed Metroplex procedures.
- On May 11 2020, the FAA established <u>FloridaMetroplexWorkshops.com</u> where it posted the Draft EA and hosted 12 virtual public workshops in June 2020. The agency accepted public comments on the document for 74 days, which ended on July 24, 2020. The FAA also posted the news release, <u>FAA Posts Draft EA for South-Central Florida Metroplex Project</u>.
- On May 28, 2020, FAA issued the news release, <u>FAA to Hold Virtual Public Workshops</u>, and posted social media messages reminding the public about the opportunity to participate until the final workshop ended.
- The FAA notified 800 elected officials about the opportunity to participate in the workshops and FAA sent them a one-page flyer with a request to post on personal, municipal, airport and other websites. FAA also invited Congressional officials and city and county local elected officials from the Miami area to pre-briefings on May 21 and 28.
- In June 2020, the FAA held 12 virtual public workshops to brief the public about the Draft EA and answer questions about the study and the proposed procedures. FAA hosted

the workshops on Zoom and livestreamed them on FAA YouTube, Facebook and Twitter platforms. The agency received more than 119,000 views across the state. Three Miami workshops had 28,000 views and generated approximately 2,500 comments. The agency recorded the workshops and posted on YouTube and FloridaMetroplexWorkshops.com for later viewing.

- FAA engaged on multiple occasions with the Miami Noise Abatement Advisory Board (NAAB) regarding this project, receiving generally favorable feedback on proposed changes. The NAAB chairman acknowledged that aviation noise can't be eliminated, but this project includes many beneficial improvements to the noise footprint in Miami.
- Appointments to the NAAB are outside the authority of the FAA, but the agency encourages community leaders to contact the Miami International Airport Noise Abatement and Wildlife Manager by email at <a href="mailto:noise@miami-airport.com">noise@miami-airport.com</a> for more information about NAAB meetings and/or community representation.
- After the 2020 workshops, the FAA met with U.S. Representatives and staff as well as local elected officials on June 22, July 7 and 8, August 5 and September 2 and 10.
- 9. Inaccurate: The FAA's Draft EA did not adequately study the effects of aircraft noise.

Accurate: FAA conducted the EA of this project in accordance with the NEPA and agency environmental orders. The Draft EA indicated no significant environmental impact in any environmental category, including noise.

The Draft EA studied 14 environmental categories including aircraft noise. It modeled aircraft noise at 117,424 points spaced out across South Central Florida and determined that implementation of the proposed new procedures would result in no significant impact in any environmental category – including aircraft noise.

When a Draft EA refers to "significant impact" (or in the case of this project, "no significant impact"), it is a reference to an objective legal standard that is defined by federal law, using scientific metrics and noise levels that apply nationwide.

The environmental justice analysis in the Draft EA considered whether a proposed action may have disproportionately high and adverse human health or environmental effects on minority and low-income populations. The analysis showed that no neighborhoods within the project study area would experience significant impacts to air quality or noise, including members of minority and/or low-income populations.

FAA also consulted with the National Park Service regarding the potential noise impacts to national parks, national wildlife refuges and historic sites including Biscayne National Park, which is identified as a Section 4(f) resource in the General Study Area. Through this consultation, the Draft EA determined that aircraft noise exposure resulting from the proposed procedures would not substantially change the noise environment.

10. Inaccurate: Reports of increased soot and engine emissions are the result of flight path changes.

Accurate: This is false. The FAA has not implemented the South Central Florida Metroplex. Reports of increased soot issues cannot be attributed to this project.

In general, particulate matter consists of a mixture of solid particles and liquid droplets found in the air. While most particles form in the atmosphere as a result of complex reactions of pollutants emitted from power plants, industries and automobiles, some solid particles are also emitted as by-products of combustion. Like all combustion sources, aircraft engines also produce black carbon non-volatile particles that are solid at the engine exhaust. Compared to traditional diesel engines, gas turbine engine non-volatile particles are typically smaller in size, and are too small to be seen with the human eye. The national ambient air quality standard regulates the mass of particles less than 2.5 micrometers (PM2.5) in diameter (1 micrometer = 1/1,000 millimeter).

Aviation's contribution to the ambient concentrations of PM2.5 remains small compared to other sources such as road transport and power plants, and fleet changes routinely improve the overall efficiency of aircraft engines. A recent study showed that aircraft contributed to 0.2 percent to the PM2.5 concentrations in the Northern Hemisphere.<sup>[1]</sup> Air Quality impacts from the top 66 airports that accounted for more than 80 percent of the total fuel burn in the U.S. were investigated by another study.<sup>[2]</sup> Results from this study showed that the aviation PM2.5 contribution in each of these individual airports remained well below 0.2 percent of the total PM2.5 contribution from all sectors. A 2020 study concluded that aviation landing take-off emissions contributed to 0.3 percent of total air quality impacts within the United States in 2018.<sup>[3]</sup>

In light of these research results, it is highly unlikely that aircraft operations are the source for particle deposits observed. The vast majority of the deposited particles are likely to be much larger in size than those emitted by aircraft engines.

7

<sup>[1]</sup> Vennam et al. (2017) https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1002/2017JD026598

<sup>&</sup>lt;sup>[2]</sup> Penn et al. (2017) http://dx.doi.org/10.1016/j.envres.2017.04.031

<sup>[3]</sup> Dedoussi et al. (2020) https://doi.org/10.1038/s41586-020-1983-8

11. Inaccurate: FAA modeling does not account for the more precise flight paths proposed under the Metroplex project.

Accurate: The FAA's model specifically accounts for the anticipated concentration of flight tracks from the new procedures. It also accounts for some percentage of continued dispersion and the fact that some aircraft will remain on conventional procedures.

The baseline data for the Metroplex environmental analysis was a year of flight tracks from June 1, 2017 to May 30, 2018 (as documented on page 1-24 of the <u>Draft EA</u> published on May 11, 2020). The baseline data includes all weather and wind conditions. The Draft EA compared baseline data with forecast traffic, including how aircraft will fly the new procedures. FAA modeling also considers that some flights will continue to fly conventional procedures. Noise modeling also accounts for concentrated flight tracks and some continued dispersion. This analysis is based on science and the most effective noise metric.

Chapter 5 of the Draft EA indicates that changes in noise exposure levels may occur as a result of flight path concentration. However, the results of the noise modeling analysis indicate that the South-Central Florida Metroplex Project would not exceed the thresholds of significance for changes in aircraft noise exposure when compared to the No Action Alternative.

**12. Inaccurate:** Changes to the FAA's preferential route database show changes to aircraft routes in Miami, as reported by The Miami Herald on July 17, 2020.

Accurate: The Miami Herald article mischaracterized data from the FAA's preferential route database. This database does not affect how air traffic directs flights over Biscayne Bay. The agency uses accurate radar track data to analyze flight paths.

The database is a national traffic management tool to ensure expeditious movement of traffic during heavy demand periods. It is a flight planning tool primarily used for air carrier and business aviation. Preferred IFR Routes are established only when air traffic density and/or safety make preferential routes necessary. The database has more than 10,000 routes, and 122 of the routes are Miami "city pair" routes to 73 destinations.

The article, "Beach, Bay Harbor pushed back on jets overhead. They may go to North Miami, Miami Gardens," published on July 17, 2020 in The Miami Herald incorrectly analyzed Preferred IFR Routes. FAA's preferential route database was updated to reflect high altitude structure changes above 18,000 feet, and new routes from Puerto Rico along the entire east coast.

13. Inaccurate: All aviation noise over North Miami comes from flights at MIA.

Accurate: Traffic at Opa Locka Executive Airport has grown from 130,000 in 2016 to 170,000 in 2019, a 30.7 percent increase. Many of these flights operate over North Miami. The FAA does not control the number of flights at any airport.